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AFTER-THE-WAR ECONOMIC FOOD PROBLEMS[1]

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Those who imagined that after the war was over we should be permitted to resume the existence of five years ago precisely as we left it, to take up again the problems and the pleasures as we knew them then, have certainly by this time come to realize that all such expectations are doomed to failure. The world will not again be what it was six years ago —certainly not within our period of activity. There has been such an enormous destruction of material values and human energies throughout the world that it is not possible to hope, except in the event of the discovery of very unusual new resources, for the world to be restored in an appreciable space of time to the position occupied before the great war.

During the war it was the function of the trained women of our country to teach all women conservation, the elimination of waste and substitution. Today the world faces a deflation in prices. Deflation of prices means primarily, for the moment at least, a consumer's market. The degree to which this may extend and the results that may be expected to follow from such a condition depend largely upon the future attitude of the consuming classes themselves. It is clear, from the history of previous periods of price inflation, that the maintenance of reduced prices depends indirectly, to a large extent, upon the consuming public, since production must not be undermined.

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A year ago in this country we were all living in a fool's paradise. Everyone seemed to have an unlimited bank account. Everyone wanted everything that could possibly contribute in any way to what we defined as the attributes of well-being. We wanted the broadest and the highest standard of living, and this attitude extended through all classes. It was clear at that time that we were consuming in excess of a safe estimate of our resources, and that eventually the price for extravagance would have to be paid. The question that concerned the men who were considering the problem theoretically was upon whom the penalty would first fall and how heavy the punishment would be.

We have now come to the break. Prices are falling. They must fall. We have the psychology as well as the fact of the falling prices. The consumer today refuses to buy, not for the opposite reason of his willingness to buy a year ago—that he had money then and has no money now; that is not the primary motivation at all. A year ago the consumer believed that the trend of prices was still rising. Today the consumer believes that the trend of prices is falling and that he can accelerate that trend by refusing to buy. The consumer found to his bitterness a year ago that by his buying he hastened the trend of prices upwards, and he reasons now that in a similar way by refusing to buy he can accelerate the trend of prices downwards. And this is correct.

The only question is: To what extent is it wise to accelerate the curve of prices downwards? Now, a panic is little more than an accelerated run of price deflation. If prices are to fall, and they must fall, and then on the basis of reduced prices consumption is to be maintained, it is apparent that the refusal of the consumer to buy cannot go to the point of lowering production so profoundly that it will be later unequal to the demand. In other words, the ideal method of price deflation is that it taper off gradually. If deflation occurs precipitously, it leads to such profound disorganization of the processes of production that later when the demand comes supply cannot be maintained and prices again rise, or in any event exhibit startling instabilities.

We are gradually coming to learn that unstable prices are worse than high prices. If you were to ask a German what the trouble with the mark is, he would say that it was fluctuating. If you could fix the mark at two cents, every manufacturer in Germany—and everybody else—would be glad. When the mark was a cent and a quarter, there were large importations of cotton. The mark rose to two and three-quarter

cents, nearly three cents. This looked fine to the theorist, who says that we measure the recovery of Germany by the recovery of her currency. But when the mark rose from one and a quarter to two and a half cents, it cut the price of the sale of that cotton to the Germans, and to the outside world, in two, and every importer and manufacturer lost money. They therefore stopped importing. When the mark reached three cents, the imports and exports of Germany stopped. In these fluctuations, up and down, first the manufacturer, importer, and exporter lose, and then the banking world loses. The result is a complete disorganization of the forces of production. What is wanted in prices is a stabilized tendency, which shall enable everyone connected with production to forecast in advance the probable costs.

No man today can expect basal production to recover within a year, with the tendency to price deflation carried to such a point that some of our raw materials have already, within six months, fallen to a plane of lower than pre-war values. I have just come from Kansas where I had the privilege of speaking before the Wheat Exposition. There are men in the Middle West who farm land that is now worth between fifty to one hundred dollars an acre more than it was before the war, who are selling oats for the same price they received seven years ago. There are men in the West who are paying fifteen dollars an acre rental, and selling forty bushels of oats to the acre for forty cents a bushel; in other words, the crop is no more than paying the rental. Cotton, wool, and hides are selling below cost of production, wheat also in some sections. Now, these precipitous descents in prices, that are apparently to the interest of the consumer, are eventually, if they are carried to excess, to his detriment. For the man who wants grains next year may find that the farmer cannot plant them at that figure. No price depreciation must be so sudden and depressing that in the year to come it destroys the labor of the present year.

A true deflation is one that is continuous, equitable and sequential, and not sudden, with wide fluctuations and precipitous. Nevertheless, the consumer of foods feels the psychology of the falling prices. The consumer of foods already has the fact of the falling income. The relation between falling price and falling income constitutes for the woman in the household the problem of the next twelve months. Is the price curve to fall more rapidly than the curve of income; or is the curve of price to be a widely fluctuating one, and eventually the curve of income to fall disproportionately to the curve of price? The house-

wife is thus compelled to regard the diet from the point of view of the efficiency of the diet. The point of view of wanting the best at any price can no longer be followed in any class. The lesson of the efficiency of the diet, the control of the purchases of the American housewife and her instruction in the formulation of the family diet, from the standpoint of correct physiology and also from the standpoint of her economic situation, constitute the problems that trained women during the next year will be compelled to face concretely in their everyday work.

The standard of diet in Europe is very low—in Europe as a continent. It is higher in England than it was before the war, for the poorer class. But that is largely a question of governmental subsidy. Everywhere in Europe where the government is not paying for the food and giving it away, the standard of living is very much reduced; and in most countries even where the government is paying for the food and giving it away, the same condition exists. Europe, outside of Russia, is consuming about eighty per cent of the bread-grain she consumed before the war. She makes up for the reduction in the amount of wheat and rye consumed by milling it more highly. They do not mill grain to seventy per cent in Europe. They extract it to eighty or ninety per cent, and thus the volume of flour is little lower than it was before the war. The reduction in consumption of animal products of all sorts cannot be made up. There is an increase in vegetable food, but this is poor in calories. Therefore Europe is on a poorer diet. Europe is doing less physical work than before the war, her inhabitants have suffered reduction in bodyweight. In addition to scarcity of food supply, there is scarcity of clothing and coal. Fortunately, they have had two mild winters in Europe. The clothing they use is more thin, and the houses are not heated in Europe to anything like the pre-war temperature. This exaggerates, of course, the effect of the low calorie intake. If the present winter should be a normal winter, the usual cold winter, the present coal supply, the present clothing, and the present diet of Europe will make such a winter almost intolerable for millions of people.

Now, the Europeans, when they had to cheapen their diet, did so by making the diet more vegetarian, and this has been done to a pronounced extent in Central Europe. The Germans were not especially heavy consumers of meats; contrary to popular belief they did not consume as much meat as the British or Americans. But they were heavy consumers of fats. The Germans used to believe that sauerkraut was a cabbage dish. They have learned that sauerkraut was a fat carrier,

and without fat the national dish of the diet fails. The German diet is today very low in fat. If the total calories are reduced fifteen or twenty per cent, the proportion of the calories in the form of flour must be very much increased. This is true of all countries. In Great Britain before the war bread was about thirty-seven per cent of the total calories; it has been fifty for the last three years. In France it was over fifty; it has risen to sixty per cent. In Italy it was sixty; it has risen to seventy per cent. Today Poland and Austria have as cereal a diet as Japan had before the war. The tendency of the diet of Europe has been orientalized in the direction of a large cereal intake.

Now an abnormal and restricted diet of course works when it has to work. As a diet of compulsion it is acceptable. As a diet of choice it is impossible. The problem in this country is to guide Americans in a rational restriction of the diet, with the preservation of the attractiveness of the diet and without producing an abnormal psychology. We do not want the practice of food substitutes revived in this country in any attempt to influence the diet of the American people, because it will not work in peace times. The war diet rested upon the exalted atmosphere of patriotism. In the guidance of the American kitchen in the development of the future diet that shall be saving, we must bear in mind that this must appeal to the normal psychology, it must be regarded as a normal and correct diet. The future diet must at least be equal to the diet of, let us say, fifteen or twenty years ago, when it was much more simple than it has been during the last year.

A great deal of the possibility in diet reform depends upon our agricultural conditions. Fortunately in this direction we are aided and not opposed. We have enough wheat in this country to sustain an overnormal wheat consumption without restrictions, and still sell Europe two hundred and forty million bushels of grain. Europe will hardly be able to pay for this by any known method of finance outside of international credits. There is no purpose in saving wheat in this country, no matter how badly Europe needs food, in order to secure that wheat for Europe, because it is not a question of indispensability as it was during the war. Europe will be able to find in the world the amount of wheat she is able to pay for without any restriction of wheat consumption in North America, Australia, or the Argentine. It is not a question of substitutes. On the contrary, it is possible that the European will be in the position of doing the substitution, partly, at least, for price reasons.

The Central Europeans prefer rye if they can secure it. Rye is twenty per cent cheaper than wheat, and they will import all the rye from this country that they can secure that will meet requirements. Of course, a good deal of our rye does not meet milling requirements, because, whereas only a small proportion of wheat raised will not yield good flour, a large proportion of the rye is only adapted to animal feed or for distillation. Nevertheless Europe will first take rye. She will then purchase wheat. Europeans already have all the barley they can possibly employ as human food. They take it from their animals. If they import barley from the outside world, they will not import it for the purpose of making flour; they will import feed barley, and then from their own barley select milling barley, making that into flour because it is cheaper. Europe will not import maize from the United States. The Italian crop of maize and the crop in the Balkans is good. South Europeans will of their own accord employ maize in their diet more largely than in the past. Northern Europe could use a fifty-five per cent extracted, degerminated corn-flour, but they do not call for it; they would have the same problem of importing, and the mere fact that corn flour is somewhat cheaper does not modify the financial difficulty to a great extent. And in any event if they import maize they would not import it from here, but from the Argentine where it is cheaper.

We must therefore look forward to the situation that out of the record crop of grains in this country we shall export only wheat and rye to Europe. This makes the other grains and all the other feeds available for an extended output of animal products of all sorts. We shall mill possibly fifty million bushels of wheat this year less than we did last year. On the other hand, our extraction of flour is lower this year, so that there is in each ton of grain more mill feed. This is of very great importance, because the chief dairy sections of our country are located in close proximity to the large milling centers.

We shall have a somewhat larger crop of cotton, which means a somewhat larger crop of cotton seed. If the cotton seed is higher than nitrate from Chile and tankage from Chicago, the grower will sell it, and it will come north in the form of dairy feed; if it is cheaper, he will put it back into the soil as fertilizer. The fall in the price of cotton fiber tempts the grower to hold up the price of seed. In other words, if we have a ten or twelve per cent increase in the cotton crop, this does not mean that we shall have ten or twelve per cent more cotton seed available as feed. On the other hand we have a larger amount of barley and

rye available, because we have no production of malted and distilled liquors, and this means that these grains will be more available for feed than before. We have in the West a large crop of all forms of coarse grains. We have a bumper crop of corn, with the carry-over about three billion four hundred million bushels. The country was never so long on feed as at present. This would naturally mean, other things being equal, with a stable price in view, a large production of animal products at a low price.

If this could occur, it would provide one basis for reduction in the cost of the diet in the American home, without material change in the direction of outlay. Unfortunately, however, this calculation runs counter to the fact that we have not the animals. We have lost about ten per cent of cattle and six per cent of swine in the last twelve months; special counts were made on the first of August of this year and last year, giving this result. So we have the anomalous situation of eighteen per cent above normal in feeds, ten per cent below normal in cattle, six per cent below normal in swine, and no possibility of making it up this year. Therefore, no matter to what extent the prices of oats or corn may fall, even to the pre-war level, it cannot be expected that a large volume of animal products above that of last year can be secured, on account of the scarcity of animals.

To what is the scarcity of animals due? It is due to the inability of the farmer to see a continuation of the market demands of the past two years. Three years ago we exported a very large amount of animal products. Two years ago it was still large. Last year it dropped heavily. Next year it will probably drop back to the pre-war level. This has been due to the fact that three years ago and two years ago we were selling animal products to Europe on governmental credit.

Now, Europe does not import cash lard or beef as against cash wheat. Europe imports wheat because it gives the most calories per dollar. The result we may expect is that the exportation of animal products will descend largely. To our amazement, in the last month the money value of food imported into this country exceeded the money value of food exported from the country. How quickly the trend from a food exporting into a food importing nation is being accelerated!

What will the farmer do with the limited amount of cattle and swine and the unlimited amount of feed that he cannot sell as feed? Fortunately, all the grains are sound and dry and will not decompose. He could keep them over for another year or a second year. But the holding

of crops means credit facilities which he does not possess, unless he can secure an extension of credit which at present does not seem possible.

The farmer must attempt to market as much as possible this year. He may finish for market a larger percentage of the animals than ordinarily, which means that the count of animals would be still further reduced in another year; or he may feed the animals to heavier weights. When the farmer feeds animals to heavier weights, he disturbs certain price relations which are based upon taste. In one case he will feed in the direction of public taste; in the other, he will feed in opposition to public taste. The farmer who is feeding beeves to heavier weights, will be feeding in opposition to scientific authority; the older and larger the animals, the lower the return in meat to the unit of grain employed. The efficient method is to produce baby beef, not three and four year old steers. But in order to get as much grain as possible into the final product, since he can count his corn of little value unless he can get it into the form of meat, the farmer will be tempted to feed his cattle much longer and to heavier weights. The public likes beef from heavy weight cattle. These furnish the big cuts that the hotels and restaurants want, just as our own army and navy, during the war, made absurd demands upon the Food Administration for the largest carcasses. The taste of the American public is toward cuts from heavier beef. Therefore, if during the course of this year the farmer does what we think he will do to get rid of his corn and feeds, you may find that the discrepancy that exists now in the price of choice cuts and secondary cuts in the meat shops will become less marked or possibly disappear. The characteristic thing today in the meat market is the high price for choice cuts, with moderate prices for the so-called secondary cuts, and losing money prices on poor cuts and on the by-products. The public's predilections for certain cuts is evidenced in the buying price. Before long you may find the price of the choice cuts reduced largely, and prices equalized. The other day, when corn sold at ninety cents in Chicago and at seventy in the western plains, prime steaks registered a very high retail price. Now this discrepancy should disappear. Certainly the feeding for larger beeves will please a more satisfied American customer.

It will be just the reverse, however, when it comes to hogs. Public predilection is for lean bacon and small hams. The public likes the products of a pig that does not weigh over one hundred and fifty pounds. If the farmer, in order to get rid of his feed, feeds the animals to a much

heavier weight, this will mean that ham and bacon of the kind that Americans like will become scarce, that mess pork, large hams, and lard will become more plentiful. The price of these three may be counted upon to fall, whereas the price of the others will be maintained or rise. We shall be offered the kinds of products that we care less for, except in so far as the use of lard in the kitchen is concerned. The final result of the operation will be to reduce the price of heavy hogs, which will still further augment the difficulty of the farmer. It may make the cost of the choice hams and bacon still higher than it is now unless the public declines to buy at those prices, and, even with the small stock, producers are compelled to reduce the prices. The tendency, therefore, will be to increase the consumption of beef, and decrease the consumption of pork, partly as an expression of price and partly as an expression of taste relations.

This is not what we desire. What we need is an increase in the production of milk. It ought to be possible to accomplish this under the present circumstances, where the drift of labor back to the farm has clearly set in. We may be assured that the price of feed will fall. Certainly feeds are today almost a drug on the market—gluten, for example. We anticipate a progressive and continuous fall in the price of the protein concentrated feeds. This together with the return of labor to the farm will enable the American dairy to increase the production of milk.

One of the things that enables a stable price to be maintained is variety of uses and diversity of buyers. During the recent years we have had a moderate export of cheese, a good export of butter, and a large export of condensed milk. These exports are certain to fall away. When Danish butter comes to New York and undersells ours, it is impossible to believe that we can continue the exportation of dairy products. We are now sending condensed milk to Europe only as a part of relief programs. The volume of milk which Asia, the West and East Indies, and some other countries took from us before the war is not enough to support the present condenseries throughout the country with more than a nominal activity. Some of them are compelled to close down. As these condenseries close down, they will throw the milk back upon the dairy. In the reduction of cattle that has occurred during the last year, fortunately only a slight reduction in milch cows is included. The cities must consume more whole milk.

We must centralize the American diet, for the period of reconstruction of prices, around bread and milk, where it belongs, not around bread

and meat. Fifty per cent of the calories in cereals (bread) and twenty per cent in dairy products would be the foundations of an ideal national diet. We must preach this and teach it at all times; for valuable as meat is in many ways, it is not to be regarded as comparable with milk in the diet, but only as an imperfect substitute for milk. During the war Graham Lusk preached correctly and effectively the priority of milk over meat. The American diet, if it is to be maintained in efficiency for all classes, must be within the buying power of the classes of lesser means. Otherwise, in the reconstruction of the family budgets, the most essential article may go out, and less essential articles will to some extent be maintained. If the farmer feeds his corn to produce heavyweight hogs and throws upon the market lard at a low price, the tendency will be to replace milk in the home with lard, both for cooking and direct consumption. This would put the people of our cities in the position which the mill operators of the South have occupied for many years, and certainly with deplorable results. If choice is to be determined solely by price, then there is a likelihood of the public consuming lard rather than dairy products. It is therefore imperative that dietitians should stand before their communities and preach and teach that under no circumstances should the milk of the diet be reduced. Reductions in price may be attained in many directions; lowering of milk consumption is not to be included. Beside milk stands bread.

There are several directions in which economy can be attained without any loss of efficiency whatsoever. We have developed during recent years an enormous consumption of fruits and vegetables, at all seasons of the year and from all quarters of the globe. When we were considering the war time restriction of imports of so-called less essential foods, we studied the distribution of tropical and other forms of fruit. Nowhere in the world is there such a consumption of fresh fruits and vegetables during the twelve months as occurs in this country. Now, it is very good to have them all. It is all admirable, ideally considered. It is healthful. But in the volume that we employ them, when contrasted with milk, they cannot be defended. If our people have to choose between less milk and less fruits and vegetables, including hot-house, tropical, imported, of all kinds, there can be no argument. In the first place, milk furnishes far more calories per unit. There are fat-soluble vitamines in certain vegetables, it is true, but the milk has also balanced protein. The whole diet rotates about milk in the preparation of food, and it cannot be replaced.

I have seen people trying to live on leaf vegetables, which contain the vitamines found in milk. They get their vitamines, but they do not get much else. Of plant products the seeds contain the least fat-soluble vitamine and the most calories. Roots and tubers contain less calories and more vitamine. The leaf vegetables contain the least calories and the most fat-soluble vitamine. Milk contains everything but roughage. The leaf vegetables are to be highly prized, but vegetables as a class cannot be compared with milk. The reduction must come chiefly in hot-house and tropical fruits and vegetables, and in domestic products that are transported long distances. This does not mean a lowering of the standard of living. It means merely a return to the simplicity of use that even the wealthy classes had only twenty years ago.

Another question is that of sugar. Pre-war sugar was a very cheap food. Sugar at twelve cents a pound retail is still cheap food, much cheaper than the meats. Even sugar at twenty cents a pound is cheaper than many meat products. But it is not the price of sugar with which we are concerned, it is the form in which it is consumed. It is not consumed as sugar. It is consumed largely as confections. We do not want less sugar consumed, we want it at a cheaper price. The sugar cost of a pound of candy is not over six to eight cents. The price of a pound of candy varies from thirty cents to two dollars. We must not confuse sugar consumption with confection consumption. The difficulty with American consumption of sugar is not that it is too high but that it is consumed in a mass of other materials, and we pay so much for labor, rent, overhead, wrappings, and profit that the retail price paid by the individual is entirely out of proportion to the sugar value or food value of the commodity.

What we suggest for the American home is not reduction of sugar at the table or in the kitchen. We need a reduction of sugar in the form of its more expensive manufactured states—confections and beverages. It is hygienic to consume sugar in the form of candy with the meals. It is just as good as in the form of straight sugar. But the latter costs now twelve cents a pound and the other costs multiples of that. If we could reduce the cost of the sugar that we consume, let us say eighty-five pounds a year, by changing the form so that we consume it as we buy it and do our own fabricating, if you please, rather than buy so much in a highly fabricate form, it would result in a very large saving. If we are going to cheapen the American diet without reducing its quality, we must do so by increasing the consumption of bread, increasing the

consumption of milk, and by decreasing the consumption of certain fruits and vegetables, by reducing the consumption of meats and meat products, and by holding the consumption of sugar to the amount we are accustomed to, because it is a cheap food. But let us consume sugar more in the form of sugar and less in the form of confections of all kinds that bear a very high cost of preparation and marketing as related to the actual cost of the sugar components. Is it not possible to go back to the sugar consumption of twenty years ago, when we consumed more in the dining room and less in the parlors and on the street?

These are the only ways in which the American diet can be cheapened and not be injured. We must not permit the diet to be injured. We are the best nourished people in the world. We have acquired rather elevated ideas, as a whole, in regard to what constitutes a proper and normal diet. It is our duty to teach the American public how to spend materially less money, since we are going to have lower incomes. We must consume less and save more if we are to pay our debts. If we do not do this, we will at once provoke class contrasts; and class contrasts today are not only unfortunate and unjust; they are very dangerous.

The chief basis for social unrest abroad is inadequate food and poor housing. Now the term "poor food" is partly relative. In some countries it means actually poor food. In other countries it means merely a reduction from the accustomed standards. This leads to discontent as the people think lower standards of living are due to the government in power; that if they could change the government it would mean a lowering in the price of commodities and increase in diet. Now this is impossible, of course, but it constitutes the basis for social unrest. People fancy that if things were better managed they would not be compelled to change their diet or reduce their standard of living. It is inevitable. It must occur to some extent here. It must occur in South America. It has occurred in Japan as it has occurred in England. It must occur everywhere for the simple reason that if the fiscal affairs of the world are properly run, the resources are not sufficient to maintain our inflated standard of living. If we are going to pay our debts we cannot eat and drink and play as we are doing. If we are going to repair the ravages of war we have to save, and that means a reduction in the total plane of living so that the national net income that is saved becomes augmented. We must produce more and consume less.

This becomes a practical problem for all Americans. We cannot maintain our present high plane of living while the other nations live

on a much lower plane. This means isolation here and bitterness everywhere else. It is fortunate for the American people that deflation has come before the contrast between us and the other nations had become more pronounced. We must use every effort to influence the trend of price deflation in the direction of normality of consumption. The readjustment that is inevitable should be done equitably, fairly, efficiently from the standpoint of the purchasing power, justly from the standpoint of the social consciousness, in a manner to give satisfaction to all classes of our population.

COÖPERATIVE SERVICE BETWEEN THE TEXTILE LABORATORY AND THE MERCANTILE WORLD[1]

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My subject may be boiled down to a simple question: What help can a teacher of textiles give and what can she receive from the business people of the community?

I say "business people," because the relationship may not be limited to department store merchants. Everyone who handles fabrics has a point of contact for the textile teacher. There are cloth mills, knitting mills, clothing factories, laundries, cleaners' and dyers' establishments, wholesale and jobbing houses, importers and exporters. All who deal in textile fabrics can contribute something of value and no doubt need help which the textile teacher can give. However most of her dealings are with salespeople in drygoods stores.

Just how one department of home economics has become connected with the business people of the city illustrates a phase of this coöperation. The experience represents seven years of neighborliness with the merchants, coming about in the most natural way. Questions were always arising in regard to materials which the text or reference books did not answer. The simplest thing was to ask someone who had expert knowledge. Such persons are found in high class department stores.

[1] Presented at the Thirteenth Annual Meeting of the American Home Economics Association, Colorado Springs, June, 1920.

While shopping for samples for the laboratory, I found a salesman in the linen section at one store who had a wealth of information on the growing and preparation of flax, the different grades of linen and conditions in the linen market. He was delighted to find someone who cared about these things. He loved to tell of his boyhood duties in the flax field and later apprenticeship in a mill in Scotland. Here was a man who could present the subject of linen much better than any laboratory-trained teacher. The next step was to get permission for classes to visit the store, see the linens, and have Mr. Blank explain the stock. The students, first having learned what they could from books and the limited supply of fabrics in the laboratory, were intelligent listeners. Many of them were expecting to buy linens soon and took a more vital interest because of that in the qualities and prices.

In another store, a rug salesman was discovered who has expert knowledge and the ability to impart it. When showing a wool beside a worsted wilton he allows the students to test their book knowledge in a practical way. Mr. Rug Salesman now looks forward regularly to visits from classes. The students consider this event one of the treats of the course.

There is a buyer of silk and wool goods who is a positive inspiration. He always has some new thing to show or some interesting bit of trade news he has just brought back from New York. Perhaps he has been through another factory and bought some illustrative material, such as sample cards from a Jacquard loom or photographs of fabric printing.

A young woman of unusual taste and intelligence in another store buys lingerie and infants' wear. She makes it her business to give any information wanted, lend any merchandise, receive students and speak to them. When infants' clothing, for example, is being studied we borrow complete layettes, varying from the most delicate handmade batistes to an outfit supplying only warmth and utility. This is, of course, good advertising; yet the buyer is free from any hint of it. She seems to want only to coöperate with the University.

It is not always when asking for help that one learns from these specialists. Often in passing through the store a little friendly chat will bring out information regarding goods or market conditions, which would not be gained from trade journals.

Care is taken not to cultivate one store more intensively than another. Materials for laboratory use are bought from different shops in their turn. This shows the students that no store is given preference. It

also affords opportunity to make connections with more buyers and store officials. Often a salesman hears about the textile laboratory for the first time in this way. He becomes interested. He is invited to the Open House, or Annual Exhibition of the Home Economics Department and from that time feels an interest and pride in the textile laboratory at the University.

There is all the excitement of a game about discovering new people in the stores who are interested in educational work.

The same generous spirit has been shown by wholesale merchants and manufacturers. Expert advice has been received, samples and permanent exhibits have been prepared and placed in the laboratory.

The mills and factories have been opened to classes of students. Another source of help has come from the Industrial Bureau of the Chamber of Commerce, which has investigated possible textile manufacturing for the Pacific Northwest. Much valuable data has been received before it was made public in print. Editors of technical business magazines have been very willing to answer questions of practical interest. Trade journals dealing with fabrics and wearing apparel prove stimulating and informing.

The local merchants began, before long, to send materials to the laboratory to be tested. The most common inquiries were in regard to cotton and wool mixtures, the way fibers are combined, or, perhaps percentage composition, or the distinction between fiber and real silk. These tests were sometimes made with student help as in the preparation of a large number of microscopic mounts. The test in question was always brought before the textile classes so that they might see the application of what they were learning.

Though contact with department stores has been more frequent than with other firms, tests have been made also for a men's clothing company, a wholesale dry goods house, an importing firm and a large laundry. Usually the question calls for some knowledge of textiles which few commercial chemists have. For instance, when a laundry wanted collars of pre-war quality compared with more recent make, no chemical skill was needed, but ability to use the micrometer for making thread counts. The variation in the number of warp ends and picks per inch in the sample collars submitted settled a disputed point.

The benefits of this sort of coöperation are intended for the student. Whether that student be a college freshman or junior, or a housewife in an extension class, or a young man from a department store, the

reaction is the same. All feel added confidence in tests which are of value in the business world. They see problems in testing instead of mere laboratory exercises. They are kept up to date on merchandise and find that "textiles" is a live subject, one which cannot be learned from the library alone. They gain an appreciation of market conditions which often explains the situation in which the merchant is placed. They see him, not as a cartoon figure, but, as a serious student of business affairs beset with many problems. Those who go out to teach retain this sympathetic attitude toward the small merchant in the small town, and establish relations similar to those which they have observed in the college laboratory. They also feel an increased interest in a course which may lead directly into a vocation.

A young lady walked into a Seattle store and inquired for the employment manager. It was after his office hours. The man who happened to answer her was the buyer of silks. He asked if she wanted a job and if she had had experience. She replied that she had no experience but she had taken a course in textiles at Ohio State University. He offered her a place in his own department and has found her unusually efficient.

One of my former students who had dropped out of college was working as a wrapper in a basement salesroom. She had not thought of asking for anything better. The buyer in charge of the section discovered by chance that she had studied textiles. He immediately had her put on his sales force, where she has opportunity to advance as fast as her ability permits.

A number of students, whose fathers are small town merchants, take the textile course with keen interest. They frequently bring in fabrics from the home store to test. This forms an indirect connection with stores throughout the state.

One phase or outgrowth of coöperation is the establishment of a four year course called Retail Store Selling. This developed in the department of home economics and, since the establishment of the College of Business Administration, is offered jointly by both departments. Textiles is a requirement for all freshmen. Practice in selling in stores, under supervision, is required before graduation. This training will prepare for educational directors in stores, high school teachers of retail selling, personal service work, or may lead to the position of assistant buyer or buyer.

In the beginning of this relationship between store and laboratory the work was not at all organized. Educational training for salespeople

had not been developed in the West. It was a novel idea to have some one come to the store and lecture on textiles.

I shall never forget my first experience before a group of salespeople. There were forty present. I went before them with fear and trembling. After my kaleidoscopic speech (I attempted to tell them all I knew of the subject in one hour!), I offered to make clear any points I could by answers to questions. One man quizzed me rather severely on several items. I wondered if he really wanted to know all the details he was asking about so intelligently. After he had apparently satisfied himself, he said, "Well, you're *right!*" I found later that he was one of the oldest and shrewdest buyers in the store and was very skeptical of college trained people in business.

Other stores have requested lectures, or a series of lectures, before various groups in the establishment. An advertising manager, wishing to introduce an educational feature, had popular talks given for the public during "Silk Week." A course of ten weeks was given in the same store through the extension division. In this class of fifteen studying textiles, there was not one person selling yardage. All were executives or in clerical or service departments. The man who had charge of adjustments found the work of immediate practical value in handling merchandise. Two members of the class later became trained educational directors.

From these various calls, a new type of work has developed. In June I finished a course, covering the spring quarter, which was requested by our most conservative store. This class was not for salesmen but for buyers—most of them with ten to twenty years of store experience. Five high school teachers of retail selling were admitted. Four persons in service departments, including the educational director and the fourteen buyers, comprised the class.

These men and women represented a wide range of merchandise, men's clothing, women's clothing, boy's clothing, yardage in wool, silk, linen and cotton, drapery fabrics, millinery, laces and trimmings, art needlework and lingerie. One man has charge of a large section for which he buys twenty-three lines of stock. They came to the laboratory in the evening and made tests and judged fabrics like any students. They proved to be the most interesting group I have ever taught. In fact they taught me and taught each other many things.

There was often lively debate over some question of terminology and sometimes the text books were found in error. Several members of the

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class had visited mills and could give excellent descriptions of processes. On the other hand, many were chagrined to find how little they knew of merchandise in a neighboring section of the store. Almost every week some one came with a sample to be analyzed.

One time the young man from men's furnishings brought out wool hose which had been washed for shrinkage. He had found a difference in two kinds which were presumably all wool. One was imported and did not shrink in the least. This mysterious fact was explained after they had tested the fibers and found the yarns in both all wool and were shown the character of each. The non-shrinking hose was made from a very fine, very tightly twisted two-ply worsted yarn, while the other, although worsted, was single-ply and slightly twisted. The enthusiasm over these discoveries and the pride in making them surpassed by far the most brilliant and interested of college students.

The immediate usefulness of the course was indeed gratifying. One man said he gathered his sales force about him on Tuesday morning and told them what he had learned the night before. A salesman said he had never known how to tell the right from the wrong side of serge until the buyer came and told them what he had learned about weaves. Likewise the question of the right side of damask was a point of interest to some. A buyer, in the class, told the educational director after the first night, that one lesson was worth $5.00 to him. Growing interest in the work is evidenced by the request from this store alone that two courses be offered next year—one for buyers and one for assistant buyers.

Through these various avenues of commercial activity the textile laboratory is given opportunity to function in the community. In short, there is coöperative service between the textile laboratory and the merchantile world.

THE FOOD OF THE IMMIGRANT IN RELATION TO HEALTH[1]

MICHAEL M. DAVIS, JR., AND BERTHA M. WOOD

The Boston Dispensary

THE POLES AND OTHER SLAVIC PEOPLES

The Polish people introduce us to a northern climate where the summers are not so long as the winters. Very few of the people from the cities of Poland come to America. Those we find here are the peasant class. They have lived on farms where they raised grain and vegetables that develop during a short season, such as beans, carrots, turnips, parsnips, cabbage, lettuce, and other summer vegetables. Tomatoes are not raised, nor are they known to the people outside of Warsaw. They raise stock from which they get milk and meat. In the winter they are fond of hunting and they know many ways of cooking game. Many spend their summers farming and their winters lumbering. Wood is used almost exclusively for fuel. Great ovens are built out-of-doors, where quantities of food are prepared to be stored away for winter use.

Meat has a prominent place in the Polish diet—beef, veal, and pork being the kinds most commonly used. These are roasted or used in combination with vegetables and boiled. Pork is perhaps the favorite kind, and they have many ways of making it into sausage and of smoking it. When smoked it is often covered with mace to add flavor. This is not only true among the Poles but also among other Slavic people. Pork is frequently used with beef and made into puddings or loaves.

In the winter the only fresh meat used is game, and it is customary to roast this over an open fire. The skins are used for clothing, including shoes. It has been in very recent years only that floors have been laid in the country homes, families heretofore going barefooted on dirt floors.

Fish is used fresh in summer and pickled in winter. It is rarely preserved by salting. In some restaurants of the large cities of Poland and Russia there are tanks or aquariums filled with edible fish for the enjoyment of the guests, who designate to the waiter the kind of fish they prefer. It is then taken from the tank and prepared. Fish is boiled or baked but for special occasions the best cooks prefer to make it into cutlets. These are cooked fish blended with a sauce or gravy and shaped, then fried or baked, and served with a sauce or gravy.

[1] The first article of this series appeared in the December JOURNAL. The series will be concluded in February.

Potatoes are served at almost every meal. The preferred grain among all these people is barley. The Poles use cornmeal and oats also.

Eggs are the dinner dish on Wednesdays and Fridays in place of meat. Sometimes chickens or ducks are used.

When a family arrives in this country it is confronted by many new and strange appliances, such as agate and tin cooking utensils instead of copper and iron, and "so many kinds to learn how to use"—double boilers, "funny egg beaters that you turn as you do a hand organ," bread pans, and egg poachers. Then there are "stoves with no fires in them an no place for the wood, just holes in irons, and if you turn a handle and apply a lighted match fire comes."

The clothing is queer, too. Hats made of straw or felt are such wonderful things compared with kerchiefs. Other clothing seems of such light weight material, even in winter.

When the man of the family gets his first job, it is as a laborer, sometimes building our railroads, bridges, or subways. He generally carries his noon luncheon and it consists of bread broken from a loaf, either round or oblong, whichever is the convenient shape to fit the oven. With this he may have some bizos, if he is Polish. Bizos is made of two kinds of sausage, red and white, sauerkraut, tender beef, pork and barley, all boiled together until thick, and known as pudding. When cold it is sliced and eaten either cold or warmed. The laborer has no place to warm it, so he eats it cold. In his own country bizos was one of the luncheon meats taken when hunting, and as he sits on the curb, or out along the railroad he is helping to build, he enjoys his lunch, accompanied by memories of one of those hunting expeditions and the friends who were with him.

The family diet slowly changes from flour gruel and potatoes, with coffee, for breakfast. The custom of eggs for dinner on Wednesdays and Fridays they continue as long as they are able to afford it. In winter because of the high price of eggs and because the man is out of work, they must hunt a substitute, or what is more frequently done, eggs are left out and no substitute is provided. Flaxseed oil is their favorite fat. This is hard to find here and this necessitates learning to use some of the vegetable oils which we have.

The Polish children and those of the other Slavic people come from a sturdy race. Upon arrival in this country they have round well-shaped heads, rosy cheeks, and strong bodies. With their kerchiefs over their heads they make fascinating pictures of health. They have had an

abundance of milk and fresh air in their own countries. Here they live at first in crowded districts and milk is counted as a drink, not something to eat. Therefore, because the family income is small, it is almost entirely left out of the diet. If these children are fortunate enough to belong to Polish families who have saved and bought land in the country, in order that the men might grow tobacco or have onion farms, then the family will keep goats and the children will have milk, fresh air, vegetables, and fruit. Otherwise they eat what the grown-ups have, and they pay the price. Sometimes they are constipated, with accompanying ill-feelings; sometimes they are under-weight.

In cases of undernourishment among the children, it is always necessary with the Slavs, as with all other foreign-born people, to prescribe milk and to help plan the food budgets so that milk may be included in the children's diets. Among their soups, children may have roselzlazankamt, a consomme with eggs dropped in it. Eggs are beaten as for scrambled eggs and dropped into the hot soup by small spoonfuls just before serving. They may also have chicken soup or krupnik palski, which is prepared with barley. Cereals are eaten not only for breakfast, cooked in milk, but often in soups or baked and served with meat. As vegetables are seldom cooked and served without meat, it is necessary not only to prescribe them, but also to show the family how to make purees and to cook plain vegetables. Kieselle is one of the desserts children like; it is made of blackberries, raspberries, or black concord grapes.

A constipation diet is a very easy one to find for these people as they naturally are large vegetable eaters. Szynka pieczona zkasza, ham roasted with cabbage, or rozbiantere dusgony, roast fowl with vegetables, illustrate how inseparable are their meats from their vegetables. Dusgony or vegetables they welcome on a diet list. Cereals in the form of coarse or whole grains they use. These will come under the name of kasga, which is boiled in milk or baked in water with milk and fat added during the baking to give moisture.

The diabetic patient finds consolation in the number of fish dishes known to the Polish and Russian folk. Ryba wgalarecle, or fish in jelly, is much enjoyed. The jelly is made with lemon and the first layer often has chopped cabbage or celery in it. When this is set, the fish, already boiled, is placed upright in it and more cooled jelly added to cover the fish. Pigs' feet in jelly is another favorite dish made of the gelatine from the feet of the pig, with meat from the hocks. Ciely, or

veal roasted or made into cutlets, may be used; also pork or wieprzony prepared in a number of ways. Sledy pocztomy or maatjis herring is often used for supper.

For nephritic patients it is again hard to separate their protein from their vegetables. Their vegetable soups are made thick with vegetables and in this way they can be given in a diet. Zupa jarzynowa is vegetable soup made with a foundation of chicken stock and any or all kinds of seasonable vegetables added. Soup or rosal with makoronom or noodles cannot be included but borszoz zabillang can be given. It is a beet soup made by boiling both the tops and the roots of beets with the addition of fat and sour cream.

Tuberculous patients will enjoy many of the smietanie or cream sauces which are used for vegetables, meats, and game. Ovsyanka is a very good oatmeal soup.

The following story illustrates how a sympathetically prescribed diet, recognizing the value of familiar national foods, aids in winning the heart of people. A Russian woman was asked to interpret for a Ukrainian at a Food Clinic. She was not much interested at first, but when some of her well known foods were mentioned she looked up and said to the dietitian, "I only been here in this country three years, but you my sister." She then not only urged the patient to use the food prescribed, but was much more diligent thereafter in her own regimen.

THE JEWS

The wanderings of the Children of Israel since Bible times have made them an international race. They are known to all countries and have adapted themselves to different climates and products. Because of these conditions they have a more varied dietary than any other people. They have acquired the use of Russian, Polish, German, Spanish, and Italian foods, and have adapted them to their dietary laws. It is essential that the Jewish dietary laws[2] be understood, at least in general, by all who attempt medical or social work among Orthodox Jews.

When the Jew arrives in this country, some of the limitations of his diet, if unchanged by instruction, are evident. Many of the Jewish people who come to America have lived much of the time out-of-doors, worked out-of-doors, and played out-of-doors. Here many thousands of

[2] An account of Jewish dietary laws may be found in Jewish Dietary Problems, by Mary E. Schapiro, in the JOURNAL for February, 1919.

them are tailors, sitting all day indoors at their work, having little exercise or fresh air. Many of them pay little attention to their diet during the week, until their Sabbath. Then on Friday night, Saturday, and on our Sunday, which to most of them is a holiday, they have a feast time. On Friday all the cooking is done for the next two days. Chickens are cooked, soup made, and kuchen (cakes) and mehlspeise (flour mixtures) prepared. The result of these weekly feasts is that many of the Jews eat too much, or have not a well-balanced ration. By nature the Jews are an emotional people. A slight physical discomfort usually sends them to a doctor where the readjustment of their diet many times would produce a cure.

The dietary restrictions of the use of butter and meat at the same time limit the use of vegetables. Jewish people are therefore not as fond of them as they ought to be for their own physical well-being. Rich foods are customary in Jewish families, and it is with difficulty that a taste for the simpler foods is cultivated. One must not forget that the Jewish housewife utilizes a small amount of fresh meat in dozens of ways. Jewish women have long known how to use honey, molasses, and syrup in place of sugar. Sugar has often been a luxury in the countries from which they come.

They have also been fond of rye, barley, oats, and buckwheat. These cereals have been used both in puddings and soups. Probably no other people have so many kinds of "sours" as the Jews. On the other hand they have little knowledge of stewed fruits, but do have many kinds of rich preserved fruits. All these highly seasoned foods they have in abundance. In the Jewish sections of our large cities, there are storekeepers whose only goods are pickles. They have cabbages pickled whole, shredded, or chopped and rolled in leaves, peppers pickled, also string beans, cucumbers—sour, half sour, and salted—beets and many kinds of meat and fish. This excessive use of pickled foods destroys the taste for milder flavors, causes irritation, and renders assimilation more difficult.

In prescribing diets for the Jewish people it might be helpful, both to the person who prescribes and to the patient for whom the diet is prescribed, to remember that all their foods may be classified under three heads: (1) meat or fish, (2) milk and its products, and (3) neutrals. *Meat and milk are never mixed.* Neutrals may be used with meat or with milk products but never with both in the same meal.

The Jewish children suffer from too many pickles, too few vegetables, and too little milk. Since they cannot drink milk with their meals if they have meat or fish, mid-morning and mid-afternoon meals of milk have to be introduced. This is impossible if the children are in school, unless there is a school lunch. Enuresis is quite common among these children, as they are accustomed to having highly spiced foods in their diet, with pickles at and between meals.

For undernourished children among the Jews, it is necessary not only to urge the use of milk, but to plan *when* it may be taken. Vegetables are usually needed in greater abundance. These may be eaten in borsch, a favorite soup such as our vegetable soup, but this does not give them in very large portions; therefore a menu should be given to show how they may be combined with other foods, remembering that, if served with a white sauce or butter or in the form of a cream soup, they must be eaten without meat, but can be used at the noon meal or lunch with bread. Poached or "dropped" eggs are not often used. The process is unknown. A "dropped" egg was prescribed for a patient who did not know what it meant. When it was explained that an egg was broken and its contents dropped into hot water, he shook his head and said, "Oh, no! I lose my egg; he get all mixed with the water." When he was taken to the stove and saw an egg poached, he stood in wonder and admiration. He said, "I go home tell my wife, she never knowed that." Since then many mothers and even children themselves have been shown in this same food clinic how to poach eggs.

Cereals are not used as a breakfast food because of the amount of work required to kasher them in large quantities. All cereals must be tested as follows: "Place them on a hot plate. If no worms or other insects appear they are fit to be eaten, if not fit they must be thrown away." The cereals used by the Jewish people are barley, oats, buckwheat, and rice. These are baked in a pudding and eaten with meat. Children soon learn to eat cereals boiled with milk and will learn more easily if raisins are added.

In the treatment of constipation, which is very frequent, cereal pudding or krupnick is given. Six glasses of water a day are prescribed, "to kasher the intestines," also rye bread or "Jewish black bread," and borsch once a day.

There are many Jews who have diabetes. When prescribing for them one has not only to give a new dietary, but also to teach the ways to cook the foods allowed. For example, they have been accustomed to

having vegetables in small quantities, cooked with beef; but for the diabetic, this is excluded and new forms of cooking vegetables must be introduced. All non-carbohydrate vegetables after cooking may be served with drawn butter, white sauce, or a hollandaise sauce, or with salt and a small portion of lemon juice or vinegar. Green peppers stuffed with vegetables are another pleasant variety. As the Jewish dietary does not allow shell fish or tripe, no thought need be given these, but liver is frequently used, kashered over the fire. This must be specified as not allowed in the diet.

Before Passover the patient must be warned not to eat Mazzah or unleavened bread which is made of flour, salt, eggs, and water in the form of large crackers. Eggs baked in spinach or scrambled with mushrooms may be ordered. The Jewish people are fond of the flavor of almond omelet. Eggs scrambled with vegetables and baked in a nest of vegetables are two of their favorite ways of preparing these foods.

In cases of nephritis, all pickled foods should be discouraged, also the use of "sour salt." Almost all their soups are low in protein. Many of their meat dishes have little meat in them.

The diet for a Jewish tubercular patient would have less of the carbohydrates and more of the protein foods than is usually found in the Jewish daily dietary. Milk and eggs may be given between meals, both in the mid-morning and mid-afternoon, and before bedtime. Milk dishes of all kinds, from a plain boiled or baked custard to a Bavarian cream, will have to be taught in exchange for some good recipe for soup which the patient may furnish. Once more the staple borsch may be used, made without meat and with the addition of sour cream. Sour cream is a favorite dressing for berries or fruit and may be used freely by these patients.

The Jewish housewife has had to adapt herself a number of times to new foods and their preparation, each time remembering her dietary laws and arranging the recipes to conform to them. This fact makes her an apt pupil.

GASTRIC RESPONSE TO FOODS[1]

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This paper consists largely of the summaries (quoted literally) of thirteen papers. Their interest for the teacher of dietetics is great, but caution must be observed in attempting to generalize from these results for the benefit of the "lay mind."

The figures given in connection with acidity determinations, indicate the numbers of cubic centimeters of tenth-normal potassium hydroxide necessary to neutralize 100 cc. of gastric juice. "The curve of acidity may be taken as a measure of the glandular response of the stomach." Naturally a delayed evacuation time gives rise to a higher acidity than does a shorter time, *provided other factors are approximately equal*—since the secretion of gastric juice is continuous over the entire period of gastric digestion, and since the successive disappearance through the duodenum of those portions of the food mass which are earliest digested results in higher and higher concentrations of undiluted gastric juice. However, the amounts of total acid evoked vary greatly with the type of food material, in the same stomach, and under the same conditions, as is well known; proteins, for example, giving rise to a relatively high secretion of acid; fats and sugars to a relatively low one, even though their stay in the stomach is greatly prolonged. Also, "it is necessary to carefully distinguish rapid emptying with high acidity (a normal response) from rapid emptying with low acidity which is usually pathological and is readily brought about, for example, by a cold. No experiments on the latter class of individuals are reported here."

The combined acidity measures the amount of acid which has attached itself to certain kinds of radicles belonging to molecules found in the food mass (e.g., to the amino-acid radicle of proteins), while the free acidity measures the acid which does not so combine. Fruits, for example, "leave the stomach very rapidly with the development of considerable free but little combined acidity." Naturally some allowance has to be made for the acidity of the fruits themselves.

However, the ultimate development of a high acidity must be interpreted in conjunction with the general form of the acid curve, i.e., with the degree of acidity developed during the earlier stages of digestion. For example, the authors remark in one instance that "a high acidity was developed on ginger

[1] Abstract of thirteen papers from the Laboratory of Physiological Chemistry, Jefferson Medical College, Philadelphia; published in the *American Journal of Physiology* and in *Science*. The exact references will be found in the bibliography that will accompany the second installment of this article.

snaps, but this was very slow in development, indicating that the ginger depressed secretion."

The authors emphasize the fact that different samples of the same kind of food, varying as they do in moisture content, in proportions of protein, fat, sugar, etc., in texture and consistency, must be expected to give somewhat different results even in the same stomach. A study of the digestion in the same stomach (or in each of several stomachs of different types) of food samples made from weighed amounts of uniform materials, by identical formulae and with unvarying manipulation, so as to be approximately uniform in physical and chemical characteristics, will doubtless yield more strictly comparable results for the use of the cook who must minister to the delicate or abnormal or temporarily incapacitated stomach. Yet this extensive series of experiments reveals the ability of the stomach of the healthy adult man to care for a large variety of food materials, i.e., the rather wide margin of reserve power, which leads to its comparative indifference, so to speak, to the great differences in physical and chemical characteristics between such materials as mashed potatoes and fried potato chips—to choose a single illustration.

It should of course be remembered that these studies refer merely to gastric digestion, and do not indicate in any way the degree of completeness or thoroughness of digestion, at the end of the process.

I

The first of these papers describes a certain piece of apparatus devised in this laboratory for the study of intragastric conductances and temperature determinations without disturbance or removal of gastic contents; and discusses the causes for rise of conductance with the introduction of water or various foods into the stomach, with the swallowing of saliva, and with the regurgitation of pancreatic juice or bile.

II

The second paper describes certain studies on milk coagulation made with an individual "who had the unique ability to deliver samples of stomach contents at will." The conclusions contain the following deductions: Raw whole cows' milk forms a large hard curd, whereas boiled milk curdles in a much finer and softer form. Pasteurized milk showed smaller curds than the raw whole milk but larger than the boiled whole milk. The drinking of 500 cc. or about 1 pint of a very rich pasteurized cream (40 per cent milk fat, a "whipping cream") caused the formation of particularly soft curds after a delay of half an hour (instead of about

half a minute as in the case of milk), also a very uncomfortable heavy feeling which bordered on nausea. When a similar amount of a 20 per cent cream ("coffee cream") was drunk, the delay was much less, though the stomach emptied slowly. Skimmed milk yielded a particularly hard curd due to the absence of fat. Cold milk coagulated more slowly than did warm milk. Milk drunk very slowly, or "sipped," coagulated in larger curds and left the stomach more slowly than did a similar sample of milk which was drunk very rapidly.

III

The third article in the series deals with the digestion of beef and beef products (cooked in various ways) in the stomach of normal men, using the fractional method of gastric analysis. Over 70 different experiments were made on 25 different subjects, who were classified as belonging either to the rapid-emptying type or else to the slow-emptying type. The average evacuation time for beef (100 grams, or nearly $\frac{1}{4}$ pound) was in the former case 2 hours and 35 minutes, in the latter case 3 hours and 25 minutes. As to methods of cooking, the report gives the following statements:

Roast beef appeared to be handled by the stomach with about the same ease whether rare, medium, or well done, although the rare beef had perhaps a slight advantage in this respect. Beef steaks appeared to be just as readily digested if cooked rare as if medium or well done. Very tough steaks from the cheaper and tougher cuts of meats such as rump and shank showed distinctly more rapid evacuation than sirloin or the best tenderloin steaks, in the same individuals. Roast beef was found to lie between these two classes of steaks in gastric response and evacuation time. Hamburger steaks were found to leave the stomach in about the same time as an equal weight of roast beef under the same conditions.

Stewed beef was handled by the stomach in practically the same time as roast beef, but with a less rapid development of acidity. The response to boiled corned beef was similar to that of roast beef or stewed beef. Acid production may, however, be slightly delayed in the case of corned beef. Dried beef was digested with almost the same ease as ordinary roast beef. There may be a slight delay due to the low moisture content if the meat is eaten dry. Beef bologna was handled by the stomach in the same length of time as roast beef. Calves' liver required a slightly longer time. Beef tongue was less readily digested than dried beef. Frankfurters left the stom-

ach rather quickly, as did also sweetbreads. Tripe was digested a little less rapidly than roast beef.

IV

The fourth paper reports similar studies made on the gastric digestion of pork and pork products. The average evacuation time for stomachs of the rapid-emptying type was 2 hours and 45 minutes; for those of the slow-emptying type, 3 hours and 40 minutes.

Pork products in general were comparatively slow to leave the stomach as would be expected from their high fat content. The differences were not as great, however, as some figures in the literature indicate. Thus roast pork was retained appreciably longer than roast beef in most instances. Pork chops required about the same period of gastric digestion as roast pork. Fried ham also required considerably longer to digest than roast beef. Minced ham showed a slight advantage over boiled ham as to evacuation time. Acidities were also more rapidly developed in the former instance. Roast beef was handled somewhat more quickly than either.

Liver and bacon required about the same period of digestion as roast beef. In certain instances liver and bacon were handled more readily than liver alone. In one case the contrary was found. Pork sausage was somewhat more easily handled than were pork chops but less readily than roast beef. Ham bologna required about the same time to digest as fried ham or as the less readily digestible beef steaks. The evacuation of bacon was found to be slow and low gastric acidities were developed. Ham sandwiches were more readily handled than other pork products tested. "Scrapple" left the stomach more slowly than pork sausage and belongs to the less readily evacuated pork products. Pigs' feet gave variable results but appear ordinarily to be handled more easily than pork chops.

V

The fifth paper gives the results obtained when lamb and lamb products were studied in the same way as had been the case with beef and pork. The average evacuation time for the rapid-emptying stomach was 2 hours and 30 minutes, for the slow-emptying stomach, 3 hours and 20 minutes.

Roast lamb and lamb chops required practically the same period of gastric digestion and stewed lamb a little longer than the other two. Sheep brains left the stomach rather rapidly ($2\frac{1}{2}$ hours) and developed a lower acidity than the other meats. Lamb stimulated acid production fully as much as any other class of meats and apparently to a slightly greater extent than beef or pork. The average total acidity at the height of digestion was 134 (beef 120, pork

117). On the average, roast lamb remained in the stomach a few minutes longer than roast beef but not as long as roast pork.

VI

The sixth paper presents the results of 90 studies on 18 different subjects, with eggs, using the same method. Two eggs (about 100 grams in case of hens' eggs) were fed in each instance. Rapid-emptying stomachs required 2 hours and 15 minutes for evacuation, slow-emptying stomachs 3 hours and 5 minutes. The eggs produced less stimulation of gastric secretion (average high acidity, 80) than did meats.

Raw egg white left the stomach much more rapidly than any other form of egg preparation. A moderate secretion of gastric juice was induced in subjects of a high acid type, but this did not become apparent until most of the egg white had left the stomach without being acted upon by the gastric juice. Egg white with 200 cc. of distilled water produced a more marked stimulation of acid secretion. Egg white with 200 cc. of orange juice led to a distinct gastric secretion and a rapid evacuation of the stomach.

Raw egg yolk required much longer to leave the stomach than egg white and higher acidities were developed. Whole raw eggs resemble egg yolk in their response whether unmixed or strained through cloth, showing the same delayed evacuation and greater acid stimulation as compared with egg white. Raw eggs produced somewhat less stimulation of acid secretion than boiled eggs and remained longer in the stomach. Hard boiled eggs required on the average a few minutes longer for gastric digestion than soft boiled eggs but the acid response was similar in the two cases.

Scrambled eggs required a little longer to leave the stomach than boiled eggs. Fried eggs were handled as readily as soft boiled eggs or any other type of cooked egg. Eggs scrambled or fried with a large excess of fat remained in the stomach a little longer, the difference being most marked with the rapid-emptying type of individual. The belief that fried or moderately greasy foods give the stomach appreciably more trouble than others was not supported by our findings. The response of the stomach to plain and Spanish omelets was found to be quite similar. Omelets remained in the stomach as long as scrambled eggs and longer than boiled eggs. Poached eggs, shirred eggs, and soft cooked eggs were found to be among the more readily digested forms of eggs.

Eggs pickled in vinegar were digested in the same time as the hard boiled eggs from which they were prepared. Deviled eggs remained in the stomach a little longer than plain boiled eggs. The eggs of the duck and turkey are handled by the stomach in the same way as hens' eggs, evacuation being somewhat delayed in the case of turkey eggs due apparently to their greater bulk. The Chinese preserved egg called "pidan" gave rise to delayed and

low acid responses in the stomach as well as delayed evacuation. This may have been due in part to the unappetizing character of these eggs.

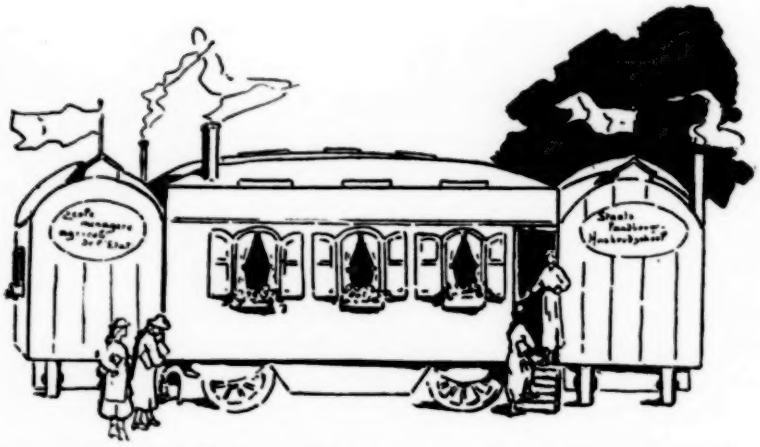
Cold storage eggs (8 months), whether boiled or fried, could not be distinguished from fresh eggs as far as the response of the stomach was concerned. The same was true of the mixed frozen eggs of commerce, whether these were scrambled or used in the baking of cakes.

Eggs with milk, or egg-nog, leave the stomach a little more slowly than eggs alone, the egg albumin preventing the formation of indigestible curds in the stomach such as are likely to be formed with milk alone. Eggs with bread or French toast remained in the stomach a little longer than bread and butter alone but not longer than hard boiled eggs. Bacon and eggs were taken care of by the stomach almost as readily as fried eggs alone, while possessing a distinctly higher food value. Frizzled beef with scrambled eggs were digested as quickly as scrambled eggs alone. Eggs and meat appear therefore to form a desirable combination from the standpoint of gastric digestion.

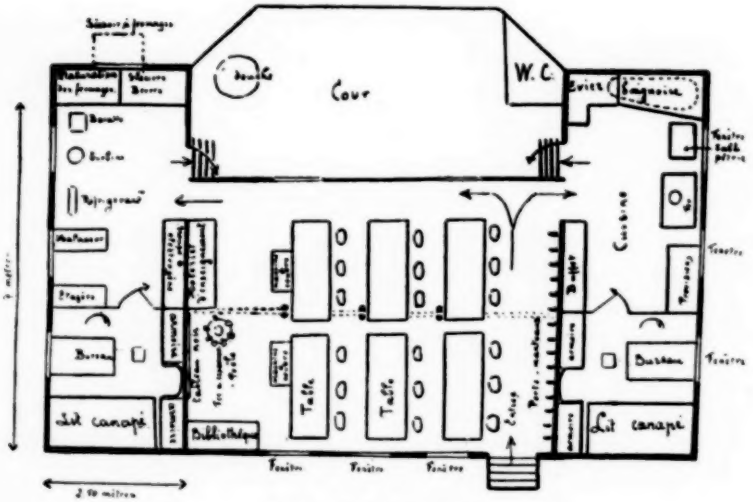
(To be concluded)

HOME ECONOMICS TEACHING IN RURAL BELGIUM

An article which M. Paul de Vuyst, the Minister of Agriculture in Belgium, has contributed to a recent number of "La Vie aux Champs" (May 10, 1920) summarizes the present teaching of home economics as a means of developing agriculture and rural life in Belgium. Aside from encouraging its extension in the general school system, the Ministry of Agriculture is including it in special schools and extension work intended for farm girls and women, where it is expected to increase the value of such farm products as are usually in charge of women, and also to improve living conditions on the farm. There are part time courses for women and girls, above compulsory school age, in movable schools, and (for special use in the devastated areas) a traveling caravan called "une roulotte" fitted up with classroom, dairy room, and experimental kitchen, as well as with living quarters for two instructors. Extension lectures and demonstrators are also to be provided, and popular literature on home economics topics is to be prepared and published. The accompanying cuts are from Dr. de Vuyst's article.



ROULOTTE SERVANT D'ÉCOLE MÉNAGÈRE AGRICOLE DANS LES RÉGIONS DÉVASTÉES



PLAN DE LA ROULOTTE

FOR THE HOMEMAKER

THE FOOD ECONOMY KITCHEN AND ITS VALUE IN THE COMMUNITY[1]

MRS. HORATIO DRESSER

National Civic Federation, Boston

In all city market districts there is great food waste of fresh meat bones suitable for human food. The Boston markets alone have been sending fifty tons of fresh bones daily to the renderer, to be converted into fertilizer, glue, soap, and other commercial products, though the greater portion might be kept in condition to make a basis for soup to feed the Boston school children, while the fat from these same bones could be rendered and used for cooking purposes.

These conditions were well known to the buyer for one of the large wholesale markets, a thoughtful, public-spirited man, who felt that some effort should be made to demonstrate better uses for this material and at the same time provide nourishing soups or stews for children.

During the winter of 1917–1918, Mr. John Kelly, Mrs. Roland Baker, whom he had interested, and a group of volunteer women opened, at Morgan Memorial in Boston, a soup kitchen where soup, meat loaf, and fat were prepared and sold.

Brisket bones were used for the soup stock. These bones are usually sold to renderers without cutting off the meat between the ribs and the fat which lies at their base. The raw meat and fat cut from 250 pounds of bones, weighs about 70 pounds. Rice, barley, or macaroni, with carrots and onions, were added. The soup was sold at eight cents per quart. The fat saved was carefully clarified and sold for cooking purposes at twenty-two cents per pound. The meat was made into loaf, and sold for twenty cents per pound. Over twenty thousand rations of food and one thousand pounds of fat were saved during this initial winter season. Men, women, and children were given nourishing food at low cost—a concrete illustration of what could be done in food con-

[1] Presented at the Conference on Group Living, Lake Placid, N. Y., May, 1920.

servation, the country over, if the public were awake to the opportunity and were willing to carry on the work.

In the fall of 1918, the Home Economics Committee of the National Civic Federation enlarged the scope of the kitchen work. Beside showing a good food use for these bones, the committee wished to provide a nourishing and well-balanced "meal in a dish" for Boston elementary school children's mid-morning luncheon. On the third floor of a centrally located building in the market district, equipment was installed for making seven hundred and fifty quarts of soup a day. Steam for cooking, brine for refrigerating were available. A regular staff of two cooks and a kitchen helper, with a dietitian and part-time secretary, comprised the salaried staff. A force of volunteer women, interested in solving the difficult problem of providing suitable luncheons for elementary school children, carried on the various responsibilities such as preparing vegetables, picking fat from cooked meat, and clarifying fat. This volunteer force also helped serve the soup in the schools.

To make the "meal in a dish," shin bones bought with the meat on were added to the original formula for the Morgan Memorial soup. The meat on the brisket and shin bones was cooked separately, cut in small portions, and added to the stock. Either barley or macaroni provided the starch, and a generous proportion of onions and carrots was used. The result was a stew rather than a soup, with its caloric value a little over one thousand calories per quart.

The Kitchen was opened at 24½ North Street in January, 1918. During the nineteen weeks from January 14 to May 31, 1919, soup was sent to eight schools in Boston, eight schools in Cambridge, and seven distributing stations in the two cities. In some schools the soup was served to special classes only; in others, any child who wished to pay the standard price of two cents per cup could buy at recess the seven ounce portion of soup. At the distributing stations, and at the Kitchen, soup was sold at ten cents per quart, and carried home in containers brought by the purchaser.

The by-products also provided a source of revenue. The cooked bones were sold to the renderer, the clarified suet was sold for cooking purposes, and soap was made from trap grease.

The encouraging response of the school committee and teachers was due to the definite results which they saw among the children served, not only gains in weight, but better mental reactions and better class room conduct.

During the season from October, 1919, to April, 1920, the Kitchen confined its work to Boston schools, and gradually enlarged its scope until forty-three schools had been served in the greater Boston district.

The school committee gave the National Civic Federation committee its cordial commendation and support, and expressed the hope that during another school year many additional schools might have the benefit of this mid-morning luncheon service. The experiment has passed into an established practice in elementary school education.

THE ROLAND PARK COMMUNITY KITCHEN

ALICE E. BAKER

The motives actuating the establishment of the Roland Park Community Kitchen are found in the following leading sentences from the first "Statement and Questionnaire" sent out to residents of Roland Park about September 1, 1919. "Domestic servants are difficult to obtain and hard to keep. . . . If cooks cannot be hired, homemakers must take their place. . . . . The average woman who undertakes this must reduce her outside activities to a minimum or be in a constant state of physical and mental fatigue. . . . . Traditional methods of preparing food in individual kitchens are wasteful and inefficient."

Before sending this circular, the women in whose minds the idea had originated had obtained all the data available on the subject of centralized kitchens, and had received encouraging reports from three existing ones. Their investigations had convinced them that the venture, if carried out at all, would be attended with many difficulties, not only those incident to any newly established business, but those arising from an attempt to cater to the prejudices of family tastes in food. Feeling, however, that the need for what they proposed really existed, and that the conditions in Roland Park for establishing such a kitchen were in some respects unusually favorable, they sent out the above mentioned circular to learn whether an effort to organize a central kitchen there would meet with the approval of the community. Almost without exception the replies, of which more than one hundred were received, agreed

that some form of cooked food service would be a boon to the neighborhood, and the majority were in favor of a motor delivery of hot dinners.

Some women who were not especially interested in the idea of a central kitchen expressed a wish for other forms of community coöperation, such as a central laundry and an agency for domestic helpers. To enlist the interest of all such women, the "Community Service Organization" was formed, with a permanent executive committee which was to investigate what could be accomplished along these other lines and to push the kitchen project. Two addresses at the Woman's Club by Mrs. James A. Odell, of the Evanston (Illinois) Community Kitchen, aroused much enthusiasm from those who heard her, for the Evanston kitchen had all the patronage it could handle and was making money. It was resolved to imitate their methods as far as possible and to establish a shop for the sale of cooked food as well as to deliver hot dinners. The cash sale of food over the counter would help to utilize the full services of the employees and to defray the heavy expense of delivering the dinners. Later, to further accomplish the same ends, it was decided to add lunch room service.

The next steps were to secure a convenient central location for the kitchen and shop, a staff of employees, and sufficient capital to start the enterprise. Satisfactory quarters were found in the basement of the Upland Apartments at the terminus of the Roland Park car lines. Two young women with tea room experience were secured as joint managers and they found capable kitchen assistants. It had been decided to provide the necessary capital by the formation of a stock corporation. Accordingly a circular letter was sent to residents of Roland Park and Guilford, setting forth what had been accomplished toward starting a kitchen, and soliciting subscriptions of stock in the "Community Kitchen Corporation." The par value was set at ten dollars a share, in order that every family in the community might be represented in the corporation and feel in consequence a personal interest in the success of the venture. Considering the number of appeals for money at this time the response to the letter was very gratifying, both in the promptness with which it was received and in the number of persons subscribing. By the first week in January the amount deemed necessary to start the kitchen had been received, and the stock company was formally incorporated.

Equipment for the kitchen and shop were then purchased, contracts were signed, and finally on January 29, 1920, the kitchen was formally

opened with an afternoon tea and sale of food, to which stockholders only were invited. The next morning the shop opened its doors to the public, offering for sale soups, salads, sandwiches, croquettes, cold cooked meats, and bakery products. Luncheon was served from 11.30 a.m. to 2.30 p.m., and afternoon tea from 3 to 5 p.m. It had been resolved to defer the delivery of hot dinners until the kitchen and shop were running smoothly, but dinners were packed in boxes to be carried home by the purchasers, and proved popular with many who found themselves in domestic straits. The first hot dinners were delivered about two months later, and the service has continued without intermission ever since. The business as a whole finds itself now upon a paying basis.

This is the story of the beginnings of the Roland Park Community Kitchen. It has not been in existence long enough to have proved much, but some of its problems might be described for the benefit of others contemplating a like enterprise. Most of them have been mentioned by Mrs. Mary Hinman Abel in her article on "Public Kitchens," in the June number of the JOURNAL.

The success of the delivered dinners depends to a considerable degree on the kind of container used for them. It should be durable, attractive, easily cleaned, and well insulated. The latest inventions in this line are, however, such an improvement on earlier ones that if community kitchens increase in number and create more of a demand for a perfect container we have no doubt it will appear.

The expense of delivering the dinners has already been alluded to. It forms an appalling item in the overhead, and makes necessary the sale of a considerable number of dinners before the cost of material and overhead is covered. For this reason such an adjunct as the lunch room or the food shop, conducted on a cash basis, is a necessity.

The workers in the community kitchen will be besieged by comments on their efforts, both well-intentioned and otherwise. Diametrically opposite criticisms of the same article of food will be repeatedly offered; so that the most they can hope for is to please, not all of the people all of the time, but some of the people some of the time. Care must be taken to have the food offered the best of its kind; i.e., prepared from fresh, wholesome materials, and cooked by experts. Then criticism will resolve itself into practical suggestions, to be gratefully received, and individual caprices, to be tactfully ignored. Complaint will probably be made that the prices are too high, because women will insist on comparing the products of the community kitchen either with inferior

articles obtained elsewhere or with what has been cooked in their own homes. They make no allowance for time and trouble or for fuel and equipment used when the food is prepared at home. The kitchen is neither a philanthropy nor a purely commercial venture, although it must be run on business principles. Selling prices must be so set as merely to cover the cost of materials and overhead and allow a safe margin. If this has been done, the only way to meet the complaint is to urge the complainant to make a careful estimate of the elements of expense that go to make up a finished article of food.

The most serious problem is the securing of a proper manager for this complicated business. She should have all the training necessary for running a successful tea room: she should know how to buy food judiciously and serve it attractively, to plan well balanced and therefore satisfying meals, to handle tactfully both her employees and the public, and to do accurately the bookkeeping necessary to show where the business stands financially. In addition, she should combine a knowledge of the tastes of the community with a salesman's faculty for creating a desire for what she has to sell. Such a combination of virtues is not easily found in one person. As an educative experience we commend the community kitchen to the graduate in home economics, and it would be well for anyone contemplating the management of such a kitchen to serve an apprenticeship in one of those already existing.

In conclusion, I should like to say that, however great their problems have been and are, nothing in the experiences of the Roland Park Kitchen has shaken the faith of its founders in the conviction that the need for it exists, that the best methods of running such kitchens will gradually be worked out, and that some day—we shall not pretend to prophesy how soon—standard articles of cooked food will be as universally delivered from central plants as gas and water now are.

A SUGGESTION ON COÖPERATIVE MEAT MARKETING

JOHN H. KELLY, JR.

Arthur Dorr Markets, Boston

In the opinion of meat dealers of recognized ability the only way co-operative buying of meats could be successfully carried on would be through group buying, with the demand for a liberal discount, from the large retail markets, who would be glad to have the business, especially if the particular persons comprising the group would carry on a cash and carry business.

People, at least those in the eastern part of this country, demand certain cuts of meat to fit the particular purpose of the meal, i.e., we use steak cuts, roasting cuts, boiling cuts, and those for corning. The foreign people of our country are carrying on coöperative meat stores successfully because, as a rule, they ask for no special cuts, very seldom using steaks or roasts as we are accustomed to do, but boiling or stewing their meats in their own native methods.

The reason that group buying can be carried on better with large retail stores is that the buyers have a larger assortment from which to select. For example, in Boston some of the most popular steak cuts demanded are the first two cuts from the hip or rump. As there are only two first cuts and two second cuts to a steer and as the average small market would probably not have more than two steers a week, if any number of these cuts were demanded by the group buyers, the market would be unable to supply them. Some persons would be unable to get them and dissatisfaction would appear immediately, and eventually it would be disastrous to the entire group. From the large retail stores, on the other hand, group buying can be carried on with the greatest security and satisfaction for the reason that such a firm has the entire wholesale market from which to select the particular cuts that they use for retail and hotel supply trade; and, as it often takes an average of three hundred and fifty cattle per week for them to furnish these cuts, it is comparatively easy for them to supply a large number of any particular kind.

FURS

One reason that the misnaming of furs is so common and that no definite legislation exists in this country against it lies in the fact that up to this time there has been no very sure way to identify with certainty the different commercial fur hairs. Dr. Leon Hausman of Cornell University has outlined in *The Scientific Monthly*[1] a method of identification with the microscope. With such knowledge available women should demand the protection which correct labeling would give. Dr. Hausman says:

It is possible to remodel and rename furs; that is, so to clip, dye, and pull them, that their original appearance is altered to such an extent that they may be sold under names not their own. Furs so remodeled may be sold under the names of furs much superior in wearing quality or in warmth.

Thus the pelts of animals from warmer zones, such as the woodchuck (marmot), opossum, Australian opossum, raccoon, weasel, Tartar pony, Manchurian dog, and certain monkeys, are worked up by fur dressers into articles but little resembling their originals and sold under other names, usually under the names of animals of northern latitudes. Such furs are inferior to those from colder climates in suppleness and durability of leather, denseness and silkiness of under- or fur-hair, fullness of over- or protective hair, and, because dyed, are brittle and less durable in general. One of the most durable of all furs is that of the sea otter (*Latax lutris*). Considering this to be represented by 100, the relative durability of some common furs, when used with the fur outside (not for linings), is as follows:[2]

Species	*Durability (Otter=100)*	*Species*	*Durability (Otter=100)*
Beaver	90	Muskrat	45
Bear, black or brown	94	Nutria (Coypu rat), plucked	25
Chinchilla	15	Otter, sea	100
Ermine	25	Otter, inland	100
Fox, natural	40	Opossum	37
Fox, dyed	20–25	Rabbit	05
Goat	15	Raccoon, natural	65
Hare	05	Raccoon, dyed	50
Kolinsky	25	Sable	60
Leopard	75	Seal, hair	80
Lynx	25	Seal, fur	80
Marten (skunk)	70	Squirrel, gray	20–25
Mink, natural	70	Wolf	50
Mink, dyed	35	Wolverene	100
Mole	07		

The following list[3] gives some of the best known furs and their usual misnomers.

Species	*Altered and sold as*
American sable	Russian sable
Fitch, dyed	Sable
Goat, dyed	Bear, of various kinds
Hare, dyed	Sable or fox
Kid	Lamb
Woodchuck (marmot), dyed	Mink, sable, skunk
Mink, dyed	Sable
Muskrat (musquash), dyed	Mink, sable
Muskrat (musquash), pulled and dyed	Seal, electric seal, Hudson Bay seal, Red River seal
Nutria (Coypu rat), pulled and dyed	Seal, electric seal, Hudson Bay seal, Red River seal
Nutria (Coypu rat), pulled, natural	Beaver, otter
Opossum, sheared and dyed	Beaver
Otter, pulled and dyed	Seal of various kinds
Rabbit, dyed	Sable
Rabbit, sheared and dyed	Seal, electric seal, Hudson Bay seal, Red River seal, musquash
Rabbit, white	Ermine
Rabbit, white, dyed	Chinchilla
Kangaroo (wallaby), various species, dyed	Skunk (marten)
Hare, white	Fox
Goat, dyed	Leopard

[1] *The Scientific Monthly*, January 1920.

[2] Modified, from Peterson, "The Fur Trade and Fur Bearing Animals," Buffalo, 1914.

[3] Modified from Jones, "Fur Farming in Canada." Canada Commission of Conservation, Ottawa, 1914.

EDITORIAL

Concerning the International Conference.

OFFICE INTERNATIONAL DE L'ENSEIGNEMENT MÉNAGER

Fribourg, le 4 novembre, 1920.

Editor of the Journal of Home Economics,
Chère Madame,

En possession du No. d'octobre 1920 de votre remarquable publication, nous nous empressons de venir vous remercier de l'acceuil reservé et de la place accordée à notre lettre du 15 juin dernier. Merci également des décisions qui ont été prises ainsi que de l'aimable commentaire qui y a été joint.

Nous saisissons cette occasion pour vous demander instamment de faire tous vos efforts en vue de nous valoir de la part de vos compatriotes tous les subsides que notre cause mérite, subsides qui est si difficile de recueillir dans un Europe que la guerre a si lamentablement éprouvée.

Nous sommes en pleins travaux préparatoires de notre III^me^ Congrès international et nous nous ferons un plaisir en même temps qu' un devoir de vous communiquer les résultats de ces travaux préparatoires dès leur définitive mise au point, qui ne saurait tarder.

En vous remerciant encore veuillez agréer, chère Madame, les trés vives assurances de nos sentiments confraternels.

Le Directeur,

LEON GENOUD.

This letter seems so much more effective in its appeal than if it were rendered into English that the editor has forborne to use her skill in translating it.

The Third International Congress of Home Economics Education will be held at Strasbourg, July 28–31, inclusive.

What can we do to help?

The Fribourg office of course wants as much official support as possible. It has appealed to the Department of Agriculture for a subsidy, but the Secretary has been obliged to reply that, while the Department is interested in the subject of the Conference, it is not authorized to use funds for such a purpose. Mr. Genoud has been informed that this is always the attitude of our Government and that the policy in this country is to leave such matters to private individuals.

Is not this the special concern of the members of the American Home Economics Association? Possibly the Association can increase its contribution. If not, there should be at least a hundred individual memberships subscribed for. It is understood that Edna White, the former president of the Association, will be able to represent us at the meeting. Any others who expect to be in Europe next year should plan to attend the Conference.

Coöperative Enterprises. There is no economic problem that is of more immediate interest to the average consumer of today than that involved in the numerous coöperative schemes that are proposed, many of them tried, and some brought to a successful issue. Such experiments should be recorded fully, whether they be in coöperative buying, coöperative selling, community kitchen, or other community enterprises. Difficulties and discouragements should receive at least as much recognition as successes. The JOURNAL is glad to include such accounts as are given in this number, both for the encouragement and the warning of those embarking upon similar enterprises. We are glad also to note an experiment of a different type, really one form of coöperation, that is fostered by the University of Maryland Extension Service.

Under present conditions in the wool market, growers are being offered prices ranging from 15 to 25 cents per pound for wool, with the result that thousands of pounds of raw product have been stored in warehouses and on farms since the slump in wool prices began.

To meet this emergency and to move the wool crop of the state, arrangements have been made with a North Carolina woolen mill to take the raw wool from the farmer and convert it into either blankets or motor robes.

The farmer will act as salesman for the finished product, selling it at actual cost and deriving his benefit from the plan by charging a fair price of 55 cents a pound for his wool. For every blanket that he sells, he will forward to the mill 10 pounds of wool. To have this wool cleaned, scoured, carded, dyed, spun, and woven into blankets will cost him $5.00. To this will be added the carrying charges, amounting to 75 cents, and $5.50 representing the cost of the 10 pounds of wool at 55 cents a pound. The completed blanket will be sold for $11.25 and the motor robes for $8.75. Both products will be all-wool with the exception of a small quantity of cotton which is used in the warp to add strength.

We shall watch with interest the working out of this scheme.

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NEWS FROM THE FIELD

The Chair of Home Economics in the Constantinople College for Girls. Contributions to the Constantinople Fund are still coming in from home economics departments in normal schools, colleges, and universities. With the amounts that have been pledged and sent in during the last few weeks, the fund has not only reached but exceeded $6000, and the Trustees of Constantinople College have appointed a director for the department.

From those recommended by the Committee of the American Home Economics Association, Mrs. Alice P. Norton has been selected as being the one who best fitted into Constantinople College conditions: first, because of her classical education; second, her long practical experience as a mother; third, her subsequent training in home economics work; and, fourth, her practical experience in educational work. The Trustees of the College felt that she could bring to the Constantinople position an understanding of their classical standards and thereby develop a sympathy between their older type of classical education and the new science and applied science that they are just beginning to develop. Also, the fact that she has been a wife and mother would give her added prestige in meeting the situation in Turkey where the unmarried woman is always at a disadvantage.

Mrs. Norton has been given leave of absence from the editorship of the JOURNAL She is leaving earlier than she had planned, taking a January boat so that she may cooperate in a study that is to be made to remedy the unsanitary and crowded condition of Constantinople due to the influx of refugees from Russia.

ABBY L. MARLATT.

Conference of Extension Specialists in Clothing. The first country-wide conference of subject-matter specialists ever authorized by the Extension Committee of the Association of Land Grant Colleges was the conference of clothing extension specialists held at Iowa State College, November 8 to 13, 1920. Twenty-six of the thirty-three northern and western states were represented by at least one worker. Those attending included nineteen clothing extension specialists; twelve state home demonstration leaders; three assistant state leaders; two assistant state club leaders; state-wide workers in foods, in household management, and in general home economics; the head of the work in clothing and textiles in a neighboring state university; and four representatives of the States Relations Service.

The conference was called to make possible an exchange of experience as to field problems and methods and a study of the extension organization with a view to learning to work through it to the best advantage. The program included such topics as the use of home demonstrators, training of local leaders, records and reports, farm bureau organization, the contribution of the specialist to club work, clothing work at county and state fairs, coöperative buying, the place of the survey in the clothing project, and training for the newly appointed specialist.

Demonstrations included the hygiene factor in the clothing project (showing the importance to health of properly fitting corsets); standardizing clothing construction operations; selection and arrangement of pictures and furniture; and selection of clothing for the girl of high school age, this last in the form of a playlet.

The following committees were appointed: General Advisory Committee, Committee on Contracts, Committee on Records, Committee on Boys' and Girls' Club Work.

The Agricultural Extension Department and the School of Home Economics of Iowa State College acted as hosts of the conference, and visiting delegates will long remember their gracious welcome and their unflagging hospitality.

Reaching the Public at a State Fair. The Vocational and State Supervisor of Home Economics in Louisiana, Cleora C. Helbing, and her assistant, Clyde Mobley, in coöperation with the State Department of Education and Home Economics Departments of State Institutions, recently conducted a demonstration at the Louisiana State Fair for the purpose of promoting and introducing hot school lunches into the schools throughout the state.

A well-screened and sanitary kitchen was fully equipped through the courtesy of local firms and agencies, and the various home economics departments carried on practical demonstrations in preparing and serving, at cost, hot lunches such as might be served in any high school. In additon to work done by college and normal students, one of the state high schools conducted a creditable demonstration, exemplifying the type of training that high school girls were receiving.

Appropriate posters, prepared by the State Department of Home Economics, were supplemented by posters, food charts, and menus from the various home economics departments.

Lunch was served each day to many visitors attending the Fair, while the kitchen was open throughout the day.

These demonstrations did more to arouse the people of Louisiana to see the need of wholesome food for children than anything else presented in the state, while the work in home economics education now in progress was given a great impetus.

Conference and Dedication of Women's Dormitory at the Massachusetts Agricultural College. On October 7 and 8 there was held at the Massachusetts Agricultural College in Amherst, a Conference on Women in Agriculture and Country Life.

The conference was of interest and value to any woman who is interested in agriculture, whether she intends to take an agricultural position, farm on a large scale, or use but a small piece of land for profit or pleasure; and to any country dweller, man or woman, who likes country life, and wants to know how to make it most worth the living. Women, who are actively engaged in some phase of agriculture, and other speakers of national repute gave practical help as well as inspiration. Mrs. Francis King, President of the National Farm and Garden Association, spoke of the agricultural opportunities which are open to women. Mr. C. J. Galpin of Washington, D. C., discussed the Transition from Family to Community Regime in Rural Life.

Nettie C. Burleigh, Wonheim Farm, Waterville, Me., and Margaretta V. Landmann, Forsgate Farms, Prospect Plains, N. J., told of their personal experiences in agriculture. Miss Burleigh does her own farm work, specializing in poultry, pigs, and dairy cattle. Miss Landmann has been engaged in several kinds of agricultural work, and is now manager of an experimental seed farm. Edna Cutter of Dracut, Mass., who runs a dairy farm and is also agricultural adviser for a good many private estates, conducted a round table discussion.

The dedication exercises of the new dormitory for women took place at the same time, with greetings from the representatives of all New England colleges which admit women. The dedicatory address was given by Sarah Louise Arnold, Dean Emeritus, Simmons College, Boston. The President of the Board of Trustees of the Massachusetts Agricultural College presented the keys of the new building to President Butterfield who acknowledged them and passed them over to Miss Skinner in charge of home economics and adviser of women. The name of the new dormitory, offered by several of those who entered the con-

test to suggest it, was announced by Miss Skinner as Abigail Adams.

The dormitory, accommodating a hundred women, is very attractive, both without and within. On the north and west there are views of the Green Mountain foothills west of the Connecticut River, while on the west and south of the building a wooded hillside makes a beautiful outlook. The living rooms are to be furnished attractively by the Massachusetts women of the New England Branch of the Farm and Garden Association. The present girl students were in attendance to act as hostesses and to show the guests about the building and campus.

A Household Arts Exhibit, given at the State Normal School, Cheney, Washington, Blanche W. Stevens, Director, included garments and problems made by the fourth, fifth, sixth, and eighth grades during the quarter.

A table was covered with exquisite art needle work, and a dainty layette. A tailored suit, made by a member of the housekeepers' class in sewing, was shown, proving that women can become expert in tailoring. Hats costing from $2.38 and up were shown, though many of them could not have been purchased for $18 to $20 in Spokane shops.

The fabric judging contest was of especial interest to the many people who visited the household arts department.

Washington Home Economics Association. The annual meeting of the Washington Home Economics Association was held in Yakima, October 28, during the meeting of the Washington Educational Association. The following program was given: What Home Economics Can Do to Help the Under-nourished Child, Martha Koehne, formerly of Johns Hopkins University; Benefits Derived from Affiliation with the Federation of Women's Clubs, Mrs. Gawler of Yakima; The Field for Educational Directors in Retail Stores, Isabel Bacon of the Federal Board for Vocational Education.

Edna Waples, Supervisor of Home Economics, Bellingham, displayed a garment made of sugar sacks to show how the Home Economics Department in Bellingham had coöperated with the national thrift movement.

The following officers were elected for the ensuing year: President, Florence Harrison, Dean of Home Economics, Washington State Agricultural College; Secretary and Treasurer, Mildred French, Supervisor of Home Economics, Spokane, Washington.

Iowa Home Economics Association. At the state meeting of the Iowa Home Economics Association in Des Moines, November 4 and 5, 1920, interesting discussions of teaching problems followed addresses by Mabel Trilling, University of Chicago, on Standardizing Home Economics Courses; Neale Knowles, Extension Department, Iowa State College; Lola Yerkes, Iowa State University; Professor Baldwin, Head of Department of Child Welfare, Iowa State University, and others.

University of Chicago. Inez Boyce, a graduate of the University of Wisconsin and for the past three years Director of the Department of Home Economics of the Illinois State Normal School, DeKalb, Illinois, has been appointed instructor in home economics. Miss Boyce has charge of the method courses and the direction of the practice teaching in food and household management.

Jane Hyde, who has charge of the home economics courses in the University Elementary and in the High School, succeeds Rosa Biery, now Mrs. Lawrence Andrews of Pittsburgh. Miss Hyde is a graduate of Columbia University and during the past two years has been teaching in the Deerfield-Shields High School of Lake Bluff, Illinois.

Dr. Chi Che Wang, until recently an instructor in Home Economics (food chemistry and nutrition), is now head chemist at Michael Reese Hospital, Chicago. Dr. Wang's work consists of the supervision or performance of the analyses necessary in the treatment of diabetic, nephritis, and cancer cases, thyroid diseases, digestive disturbances, and others. She will also direct research in this field.

Fellowships for the year 1920–21 have

been awarded as follows: Marie Dye who has her bachelor's and master's degrees from the University of Chicago is working toward her doctorate in nutrition. Adah Hess, B.S. Teachers College, Columbia University, is working toward her master's degree in home economics education.

NOTES

Anna R. Van Meter has been appointed Assistant Director, Bureau of Nutrition Service of the American Red Cross and took up her work in Washington early in November. Miss Van Meter was formerly Professor of Home Economics at Ohio State University and was acting head of the department last semester. She has lately been engaged in a piece of work in Detroit under the joint auspices of the Merrill-Palmer School, of which Edna N. White is director, and the Detroit Chapter of the Red Cross.

Faith R. Lanman, formerly professor in charge of Home Economics Extension, Ohio State University, has been appointed as head of the Department of Home Economics in the same university.

Geraldine Hadley has been appointed head of the home economics department at Bradley Polytechnic Institute to succeed Helen M. Day who has gone to California.

Mollie Noble has returned to New Zealand after spending the summer observing and studying home economics in the United States, especially at the University of Washington, Seattle. Miss Noble was sent to this country by the Auckland Education Board.

A letter from Miss M. E. Roberts, in charge of Women's Handicraft Branch, Technical Education Division of the Australian Department of Education, Sydney, Australia, shows that home economics is making very definite progress in that country. Miss Roberts made particular inquiry regarding available educational text books in home economics, and the International Committee of the American Home Economics Association was of service in sending information to her.

Louise G. Turner, formerly State Supervisor of Home Economics in Tennessee, is now Associate Professor of Vocational Teacher Training, at Pennsylvania State College.

Treva E. Kauffman has resigned from her position as Assistant Professor of Home Economics, Ohio State University, and State Supervisor of Vocational Home Economics, State Board of Education, to accept the position of State Supervisor of Home Economics with the University of the State of New York at Albany. Miss Kauffman was connected with Ohio State University for seven years. She developed the school lunch work in the small schools of Ohio, organized the girls' club work, and later organized the teachers' training and field work in home economics under the Smith Hughes Law.

An intensive course in administration of vocational education will be given at Teachers College, Columbia University, January 26 to February 23, 1921.

The Vocational Education Association of the Middle West will hold its next annual convention in Minneapolis, Minnesota, February 10 to 12, 1921.

The Meeting of the American Home Economics Association, in connection with the Division of Superintendence, N. E. A., will be held in Atlantic City, February 28, and March 1, following a meeting of the National Society for Vocational Education, February 24 to 26. The program is based on the problems of the home economics teacher in the elementary and high schools. Further details will be printed in the February JOURNAL.

The meetings will be held in the Hotel Dennis. The Convention Bureau of Atlantic City will send, on application, a pamphlet giving full information concerning hotel rates.